

And now a few words on the different exhibits, more especially the live stock which we think our readers are the most interested in. The horse exhibit included Clydes, Percherons, thoroughbreds and trotters, and it would be hard to beat it as a whole. The entries comprised about 250 of the different breeds, and when they appeared in the cavalcade it was a sight to please any horseman. In the draft class Clydes seemed to have a slight call over the Percherons in this section, but as both exhibits were fine, a second premium meant a first class animal. In trotting stallions Mr. W. J. Bartow's "Sovereign" was awarded first, and we think the gentleman.

(Continued on eighth page.)

The Horse.

From our Paris Correspondent.
HORSES IN FRANCE.

Paris, Sept. 15, 1885.
In the case of horses, the "beautiful" does not constitute a unique type, as such is essentially subordinate to utility. Confusion on these points has led to many errors. That which can be a merit in one horse, is a defect in another. To be useful a horse ought to present to the rearer, a combination of those qualities, appropriate to the service for which it is intended to be employed. That animal will be the most beautiful which corresponds best by its form, or points, to the special end for which it is destined, like the dress of the Vicar of Wakefield's wife. Farmers require a type of animal uniting somewhat that of the saddle and the draught horse. The latter, as compared with the former, must be higher, while at the same time possessing more of body downwards, and more voluminous muscles. The horse adapted for the heavy cavalry, is not a bad type of what the farmer requires. It represents more weight and more considerable power of traction. It is not rapidity of movement, but strength that is demanded in a farm horse. The Percheron is the type of the light draught horse, uniting rapidity of movement to power of draught. It possesses beauty in its relative corpulence.

Now the *boulonnais* race of horses is the type par excellence of a farm animal; to the good points and dash of the Percheron, it possesses the requisite muscular development, expressive of force. Possessing a mass of muscle, naturally detracts from its symmetrical unity. But there is gracefulness in this mass of force. The head is relatively small, and the physiognomy gentle and intelligent. Now no matter what may be the color of the horse, the brilliancy of the shade, and the shining of the coat, are ever indicative of good health and an energetic constitution.

It is essential to bear in mind, there is a tendency on the Continent to confound light and heavy draught horses. In other words, an inclination to infuse some *boulonnais* or Flemish blood, into the Percheron or Norman breeds, and this explains why Flemish horses are now receiving so much attention from exporters. The difference in what may be called the volume of the horse, depends chiefly on the circumstances in which it is placed. The Flemish horse is common to Belgium and the Ardennes. It has been incorrectly asserted that the Flemish and Boulonnais horses are the same. Both are the expression of their peculiar agricultural regions. The more humid climate of Flanders has developed a horse, voluminous and relatively gigantic. It is often 64 to 66 inches high. The head is rather large in proportion to its corpulence, the eye small and sparkling, and the shoulder short, the hunches are low and strongly covered with muscles; the limbs are large and coated with coarse as well as abundant hair; the skin is thick; the feet large and frequently flat. The outlines are thick and fleshy. In traction, the efficacy of the animal is more by mass than by vigor. The Flemish horse is accused of being flabby, or nervous, and to possess the drawback of a lymphatic temperament.

But the latter is due to aqueous food and humid climate. However, when the Flemish horse is well supplied with oats, or a hardening diet, it approaches more and more the Boulonnais. The admixture of a few drops of blood of the latter would equalize the races. The *boulonnais* horse, from the centre of the region whence it takes its name—Boulougne-sur-Mer, is so precocious in its development that it can be employed in agricultural operations at the early age of eighteen months. At five years its development is complete, it is then large, short and corpulent; more athletic and agile than one would be inclined generally to think. The fillies are generally kept in the country, and colts are sent to Normandy. But the emigrations to the latter region do not take place directly, nor till the colts are aged two to three years; they leave Boulougne when aged six months, and are kept in the south of Picardy till two years old, when they are sent forward to Caux, Dreux and Chartres—the region of the Percherons. In Normandy the emigrants receive a substantial diet of oats, which imparts to them fire and lightness. They here become in time the type called "large Percherons," but not true Percherons, a difference that purchasers of imported horses ought to note carefully. In a dryish climate, and subjected to a liberal regimen of oats, there is nothing to prevent a good breed of farm horses being produced by a mixture of Flemish and Percheron blood.

The fall meeting of the Detroit Driving Club, which occurred the past week, brought together some good horses in the various classes, and gave those in attendance some very pretty contests. The 2:30 pace on Thursday had six entries, namely Fred V., Jim Blaine, Billy F., Little Toney, Mistake and James H. Mackie. Billy F. was the favorite and Fred V. was second choice. Billy F. took first heat in 2:25, Jim Blaine second. The second heat was won by Fred V., with Jim Blaine second, time 2:24. Things went along in this shape until the fifth heat, when the judges took down the driver of Jim Blaine and put George Voorhis behind him. Result, Blaine took the next two heats in 2:24 and 2:25. The race then had to be postponed until next morning, when the favorite, Billy F., took the first heat and the race, Blaine getting second money. This race was undoubtedly fixed up, but the change of drivers nearly spoiled the game. Perhaps there should have been a man to watch Blaine all night.

Goldsmith Maid the celebrated trotter, died at Trenton, N. J., on the 25th. She was 26 years old, and had been retired from the turf for several years. She had earned \$340,000 for her owner.

Horse Gossip.

J. M. Hill, of Chicago, has sold his pair of paces, Western and Lorene, to F. Siddals, of Philadelphia. The price paid is put at \$50,000, but is undoubtedly largely inflated as an "ad" for Siddals' soap. Western is a record of 2:15 with running mate, and Lorene a record of 2:15.

Two mare Gladys, which recently made a record of 2:23 at Cleveland, O., is Michigan bred. She was got by Royal Farnought, out of a mare of unknown breeding, but supposed from her make up to be of Morgan blood. Gladys was bred by F. S. Harris, of Bronson, this State. Royal Farnought is owned at Coldwater.

A second match has been arranged between Phyllis and Harry Wilkes, to be trotted at Cleveland October 31. The Board of Directors of the Cleveland Driving Park Company give the track that day free of charge, paying all expenses of the races. Of the receipts, outside of expenses, the winner of the match is to take 90 per cent, beside the \$2,000 stakes, and the loser ten per cent. We hope it will be a race worth putting on record.

At the recent State Fair Messrs. Savage & Farnum, of Detroit, whose stock farm is at Grosse Ile, made a notable exhibit of Percheron horses. They secured first and second on everything but two-year-olds. The stallions on which they got first premiums are especially well muscled and stylish animals. A team of black brood mares were also fine ones, and drove well together. Some three year old stallions showed by themselves to be kept in this State. The firm also showed at the Western Michigan fair at Grand Rapids the past week, and were nearly as successful as at the State Fair.

At a recent meeting of the directors of the American Percheron Horse Breeders' Association it was decided to hold the Grand show of Percheron horses in 1886 at such place as would offer the most favorable inducements, and a committee appointed to confer with the Illinois State Board of Agriculture, with the St. Louis Fair Association, and such others as they might deem best. The Percheron Association of America offer \$3,000, and the Society of Hipplane Percherons of France \$1,000 for 75 special prizes. Only horses with pedigrees recorded in the Percheron Stud Book of France or America will be eligible.

Bain, the driver of Maud S., says: "Shouting and yelling at the horse is the old-fashioned way of driving. The cooler and more collected the driver, the less excited and better worked the horse will do. The only way to master a horse is to speak of him in a calm and collected manner. To treat him kindly, speak coaxingly, and to win the horse you drive enough for him to know you well. By shouting at a horse and whipping it you may get it under the wire a second sooner, and it may drop dead the next second. If a horse's legs could stand the strain faster time could be made, and Maud's record could be pulled down to two minutes. A horse's wind will win. It is not the wind that gives out; it's the legs."

The Boss Collar Pad is guaranteed the best.

The Farm.

Harvesting Buckwheat.

Buckwheat is an exceptional grain. It requires special care in cultivation and equally careful harvesting. It is a semi-tropical plant, exceedingly tender, and easily killed by frost, but yet it grows best in cool weather and does not fill the grain well until late in the season that the grower is always anxious lest the frost should injure or destroy his crop. Consequently the farmer must sow as late as possible, and yet he must avoid danger of injury by early frosts. And when he has escaped this danger the harvesting brings more difficulties which he has to look out for. This plant does not ripen evenly. The grain forms first at the lower part of the flower stalk, and the seed ripens there while it is green above and at the top the blossom is still opening. The harvesting, therefore, must be begun at a season when the most grain can be secured in the best condition. And here again comes in more risk, viz.: that of cutting the grain too soon and before the largest quantity can be secured, and also that of leaving the crop to be seriously injured by an untimely hard frost, which will kill and cause to shrivel up the immature grain, which would otherwise fill and mature in the curing, while drying in the gavel. This crop is thus seen to be surrounded with dangers from beginning to end, and it is not safe even until it is well sold, for while in the granary it is still liable to injury from heating and molding in spite of great care. These things should be understood by the farmer, so that he may exercise discretion in the management of the crop, because it is evident, with so many difficulties in the way which cannot be foreseen and provided for, no general rule can be laid down which will meet even a majority of cases. The only rule that can be given is the very unsatisfactory one, "Cut this grain as soon as it is ready," and the only help that can be afforded to the inexperienced farmer is to show as nearly as may be when the grain is ready to be cut.

Generally an expert buckwheat grower will leave the crop standing until the first frost, which kills the upper leaves and blossoms. The lower branches, which bear the most of the grain, escape. The grain will be still green in larger part, but it will not suffer by cutting. The plant is so succulent that the sap will be sufficient to mature and fill the grain after it is cut, and the grain then ripens in the shock. If frost is late, then the condition of the grain must be closely watched, and when the lower branches are filled with ripe grains the crop should be cut at once, lest these shell out and become lost.

When the buckwheat is cut it lies in the swath until it is free from surface moisture, but no longer. It is an injury to leave it to shrivel and dry in the sun. This stops the filling of the immature grains which would fill slowly under the protection of the stalks and leaves while standing in the gavel. The gavel should be made of fair size. If they are too small the straw dries too quickly; if too large it remains wet and delays the threshing. The writer's plan is to take up as large a bunch as possible one way and set it up between two swaths; then to rake as much on the same swath to this bunch

and set up with it, then when the next swath is raked the grain is set up in the same manner with that previously set up; so as to make each gavel contain four rakes. This makes a gavel of convenient size every way. The gavel is not bound. The grain stays in the gavel, until it is cured and dry. Care is to be taken to set up these, if they are over-turned or disturbed by storms. As the stalks or pedicels of the grain are exceedingly weak, the grain easily becomes detached and wasted. In hauling the crop to the threshing, it is well to have blankets or sheets spread over the rack to save the loose grain, also to carry it on a cloudy or damp day so as to prevent the loss of grain. For the same reason the grain is cut when the stalks are damp. When the grain is threshed it should be spread on a barn floor and thoroughly aired on dry, windy days before it is put in bins, and even after that it must be shifted and exposed to drying air, or it will heat in the bin. It is one of the worst grains to keep, and the farmer will do well to get rid of his surplus as soon as possible, and store what he retains on a floor in a heap not over a foot in depth.—N. Y. Times.

Large vs Small Fields.

W. D. Boynton says in the National Stockman:

"It would no doubt be a hard matter to make some farmers see how much they lose by having small, irregularly-shaped fields. In timber countries, or what were formerly timber countries, we see much to suggest this matter most strongly and to provoke the criticism that such practices justify. When the farmer clears up his place he usually does so by installments, adding a small field each year. The form and size depend upon the lay of the ground and the time that can be spent from the regular farm work to this extra work of clearing. To utilize this new field another season it must be fenced, and as the material for fencing is usually on the ground, the farmer is not at all sparing of the material, and without disturbing any of the fences upon which the field abuts, runs a new fence round the new clearing, plowing and working it separately, even if it be of but a few acres. By the sanction of usage and the demands of rotation this becomes a permanent institution. In this way field after field is added to the farm under cultivation, of all sizes and shapes. The amount of fencing thus created is astonishing, or would be if the farmer would only stop and consider the matter a little. Miles and miles are often found upon a comparatively small farm.

"The matter of keeping up the unnecessary amount of fencing is of itself a most important item. No matter if the material is cheap, it takes an immense amount of labor to put it into condition to use as fencing, and much more to keep the fences in repair after being constructed. But this is not the worst. These fields must be cultivated, and any man who has plowed, harrowed, sown and reaped three small, irregularly-shaped fields will concur with me, I think, when I say that it requires at least a third more time to cultivate twenty acres in such fields than it does to handle the same amount in one good square body. It is annoying to both man and team to work such fields. There is no straight work about it. It is constant turning and twisting.

"Nor can the work be as well done in this way. About the only way such little odd-shaped fields can be plowed is by going round and round, throwing the furrows toward the fences year after year. This will result in ridging up the fields about the edges, and in forming hollows in the centers. What natural drainage the fields may have originally possessed is lost in this way. The ridges formed about the sides of the fields obstruct all natural drainage, and the sags in the center draw the water to that portion of the field. Fence-rows are hot-beds for weeds, bushes, insects and 'other vermin,' to say nothing of the wide strips of land that they rob the plow of.

"The importance of this question of fields and fences is seldom fully appreciated. It is bad enough to be obliged to pay the miller's taxes as well as our own, without thus taxing ourselves uselessly. I can point out thousands of farmers who are to-day losing more through lack of good management in this respect than they have to pay out in the form of taxes."

Bakewell and His Black Ram.

Every little while I see it repeated, both in English and American agricultural papers, that the above celebrated breeder used a very superior formed black ram, as the great improver of his Leicester sheep. Years ago I saw this denied by a writer in an English paper, and the proofs he brought to sustain him in this denial, seemed to me unanswerable, and I have never met with any attempt on the part of other English writers to do it; they simply content themselves to continue to repeat the foolish, improbable story. If it had been true, more or less of the offspring of this ram would have annually cropped out black for many subsequent generations; but no one that I ever heard of, who had purchased Leicester sheep of Mr. Bakewell, and continued to breed them, got a lamb in his flock with even a single black lot of wool in its fleece, and much less the whole of it thus colored.

To show the absurdity of such a story, I find the following extract which I make from the *London Live Stock Journal* of Aug. 21, page 171, which it credits to a Cumberland paper: "Mr. Hawthorn of Coniston, bought 40 white ewes of Mr. G. Topping, and put to them a white head sheep of Mr. Eccles, near Hawkehead. The produce was 50 lambs, every one of which was black. It turns out that the sire was the son of a noted black ram."

Now let all who are so foolish as to suppose that if Bakewell had used a black ram in his flock its progeny would not continue to crop out black now and then, even down to our present day, hold his peace. Every little while we see a black lamb dropped from a Merino ewe, here in our own country; but no flock-master to my knowledge has used a black ram in his flock here since the importation

of this breed of sheep, which began in 1801, by Mr. Delessert of Paris, for his farm near Kingston, N. Y., and Mr. Seth Adams of Massachusetts. Now we have 84 years of pure white breeding in the United States, and yet we continue to get black lambs. The probability is that this comes from the use of a black ram, perhaps centuries ago in Spain, and to this we may attribute the still occasional produce of a black lamb in our Spanish Merino sheep.—A. B. Allen, in Country Gentleman.

Potato Diggers.

T. B. Terry relates his experience with potato diggers in the *Country Gentleman*. He tried one of the expensive diggers, which cost \$125, and found it left so many potatoes in the ground that he could not afford to use it. He then bought a cheap one, cost \$12, of which he says: "Of course it did not dig clean; no sensible manufacturer would claim that it could. Mr. Mann only claimed that it would do good work, and it did, but it left so few that the loss would not pay for hand digging, particularly with potatoes as low as they are at present. I presume after the cultivator has been over the land, preparing it for wheat, that some of the potatoes left in the ground will be brought up in sight, and could be picked up, but this doing a job twice I do not like.

"It was a surprise to me to have this little \$12 tool do actually better work than the \$125 one, but the most ingenious had been expended on the more costly digger in machinery to dispose of the weeds. It would run through a heavy crop of weeds and not clog, whereas with the little digger, the weeds, if they had been allowed to grow, would have to be mowed off out of the way. It is a sad comment on the average potato digger. In a very weedy piece I think likely the big digger would be cheaper than hand labor, for it is no small job to mow off and dig among weeds and grass. You could not get it done for \$20 an acre, perhaps not for four times that. With these little diggers one needs to be very careful to have them set just right, and about the best way to find out is to pick up and measure the potatoes in each row, changing the set each time. We dug four rows, setting the digger differently on the last two, and as we thought better, but the boxes showed that we had left a bushel to the row more in the ground where we thought we were doing the best work. The only tool we now badly need on this farm is a successful potato digger, hence these experiences. These little diggers are so low priced that the ordinary farmer who only raises an acre or two of potatoes can afford to have one. The large grower can afford to pay \$100 or more for a digger that will do nearly or quite as good work as can be done by hand. Such a machine we shall soon have."

The Kohl Rabi.

The kohl rabi, a Hungarian turnip, possesses some advantages over other turnips. The seed and the young plant at the age of five or six weeks resemble very much the seed of our Swede and the plant thereof at the same age. As it advances in age it assumes the appearance of the cabbage plant, with a stalk of from six to seven inches in height. On the top of the stalk a bulb is formed, from the apex of which a shorter neck than that of the Swede springs, bearing leaves very similar to those of the last named plant. The height at which the bulb is formed from the ground gives it a superior advantage over the turnip, in being able to withstand the destructive effects of excessive moisture and severe frosts. The height of its tough stalk places the bulb beyond the reach of depredators, while at the same time also such a property renders the bulb better able to bear frost than that of the turnip, which is embedded in the soil. Under a continued season of dry weather the turnip suffers to a great extent. Not so with the kohl rabi; it is by nature constituted to thrive under a continued high temperature. The scorching beams of the sun promote rather than impede its growth, a property which increases its value as a green crop. When we examine its root, we at once perceive the adaptation of the plant to soils where the cultivation of the turnip is attended with risk. Closely allied to the cabbage tribe, it takes a firm hold of the ground by its roots branching out on all sides, and thrives the best where the soil is strong and the manure plentiful.

The bulb of the kohl rabi when formed resembles in taste that of the Swede, so much so that it is difficult to tell the difference. We had the bulbs given to cattle, sheep and pigs, all of which readily, and with much apparent relish, consumed the top and bulb of the kohl rabi. The advantages of the Hungarian turnip may be thus enumerated: It thrives well in very dry weather; cattle and sheep eat it freely and have been fattened upon it; it yields much more nourishment to cows and horses when boiled with grain; it bears transplanting better than any other root; insects have not the same destroy influence over it as over the turnip. I have seen it stated that this plant has been grown in Scotland, weighing from five to seven and a half pounds each, and in Ireland that the bulbs have exceeded the above weight.—American Cultivator.

What to Do with Rotting Potatoes.

The *Husbandman* says: Complaint is made that potatoes are rotting, especially early kinds that are well ripened. Frequent rains in the last fortnight have increased the tendency to rot, and there is apprehension that considerable loss will occur from this cause. The best way to treat potatoes when rot has begun, is to dig them as soon as they are ripe and the ground is in suitable condition—that is to say, dry enough. In picking them up, see that no rotten tubers are gathered. Take the sound potatoes to a dry place, where they will have shelter and be screened from sunlight, and sprinkle them liberally with slaked lime. This serves to dry the surface, and possibly to check rot in its incipient stages. Under this treatment it is not certain that progress of the disease will be arrested, nevertheless it is the safest way, and is likely to secure the largest amount of sound potatoes. When

rot begins in a field, if the potatoes are not dug at once, the disease will extend until it has run its course, leaving few sound potatoes to dig. There are farmers who think the best way is to let the crop take all the damage it may before digging, for, as they say, "It is no use to dig and pick up potatoes to rot afterwards; better let them rot in the ground." The argument is not good; for it is quite certain that a much larger proportion may be saved when the tubers are dug and dried and otherwise properly treated.

Prepare Now for Eggs in Winter.

Those who have devoted much time and attention to fowl farming know that as a rule, the earliest chickens make the best, the finest and showiest birds. They know, too, that early chickens, if well cared for during the summer, will commence to lay in the fall and do more or less of it all winter. If this be true then we have to keep it before us and prepare for the work when the time comes, for then is when fowl farming is made to pay. Eggs now when everybody's hens are laying, are hardly worth the gathering and sending off to market as compared with the prices winter eggs and spring chickens will bring.

Many young people on the farm can afford to devote a little time and thought to such an enterprise as this, and make themselves a handsome sum every year. Many who spend hours in comparative idleness, who never earned a dollar in their lives or enjoyed the felicity of spending their own earnings just as they please, could so begin life as to lead on to thrift, industry and fortune. It is from such small beginnings indeed, that habits are formed, success attained, and fortune made.

To begin with, select from the best birds from the earliest hatchings, feed them, water them, train and domesticate them. Make them to know you, to follow you, and to do pretty much as you please, and you will find them profitable servants, and first-rate friends and neighbors. Be very careful not to overfeed, rather let them search for a living, being sure, however they do not suffer. Prepare for them in the meantime, a snug and comfortable house in which to winter, for at that season they are not inclined to lay in a snowbank, nor sit under a hedge-row. The house need not be an expensive one, but must have it facing south so as to catch all the sun possible. The warmer it can be made the better, but it must be ventilated. With such an arrangement, many dozen of eggs may be obtained during the winter that will sell at from twenty-five to fifty cents per dozen.—Farmers' Call.

Agricultural Items.

At the Minnesota State Fair the champion squash weighed 150 pounds; the one which took second prize weighed 125 pounds.

Those who grow sorghum should allow the seed to partly ripen before cutting the crop. The yield of seed is not less, and sorghum seed is worth as much per bushel for feeding as corn, and is an important part of the product.

Butter in the north of Scotland has not been so low in price for thirty years. In the Banffshire district farmers have been disposing of their prime butter to merchants for 12 to 13 cents per pound. Many of the Scotch agriculturists attribute this to the competition of finer qualities of butter from Denmark and America.

The *Husbandman* says no grain bin is complete if unventilated from the bottom. One of the best and most simple ventilators consists of a galvanized iron cone about six inches across at the base and a foot high, punched full of holes over the entire surface like a colander. To construct this contrivance, saw a circular hole five inches across in the bin floor, over which place the cone, securing it by a few nails. This ventilator is cheap, convenient and effective.

The *American Cultivator* says the latest wheat is sown the heavier should be the seedling, as there is less chance for it to spread at the root before winter. In the very latest seedling we have sometimes sown two bushels and a half per acre; while with earlier sowing on the same field a bushel might be sufficient. Something depends on the habit of growth of the variety. Some kinds of wheat spread at the root much more than others under the same conditions.

Owing to the wet summer, or other cause, less complaint than usual has been heard of the ravages of the potato bug. Many farmers have not been obliged to use any precautions to save their crop. It is probable that in these cases the exemption from injury is not altogether due to the season. There are many kinds of parasites which help the farmer in his contests with insects. It is probable that one or more of these have increased sufficiently to keep the potato beetle in check, aided by occasional assistance from man.—American Cultivator.

The mysterious burning of two barns in Indiana, says Dr. Caldwell, in the New York *Tribune*, is attributed to spontaneous combustion, starting when new hay was piled on old. That new hay alone will sometimes take fire spontaneously there is no doubt, even in cases cured. That there is more danger when new hay is most thoroughly cured is piled on old and very dry hay is not unreasonable; the new hay heats by a partial fermentation, as manure heats in a pile, and the much dryer old hay in close contact would be easily set on fire.

The Massachusetts *Ploughman*, alluding to the fact that swine fed on city refuse are not only extremely susceptible to hog cholera, but also to trichina, says that for the protection of the farmers who feed their hogs on healthy food, the time has come when there should be some law to regulate the sale of swill pork, so it does not regulate the production of it. The whole people are interested in this matter, and they ought not to be made to suffer that the few who live in the vicinity of cities may be able to produce pork cheaper than the remote farmer can on good corn, and then carry it to market and sell it at the same price, because most purchasers cannot detect the difference by appearance.

Waller's Honey the Great Cough Cure, 25c, 50c & \$1. Glenn's Sulphur Soap heels & beautifies, 25c. German Corn Remover kills Corns & Bunions. Hair and Whisker Dye—Black and Brown, 50c. Pike's Toothache Drops cure in 1 minute, 25c. Dean's Rheumatic Pills are a sure cure, 50c.

NEW ADVERTISEMENTS.

THE WONDER.

Is becoming universal as to how such an immense sale could be created in Lowell for Hood's SARSAPARILLA. But, my friend, if you could stand behind our counter a week and hear what those who are using it, the reason would appear as clear as the noon-day sun. The real curative power of Hood's SARSAPARILLA, in every case where the directions are faithfully regarded. We would that we might get before the people a fractional part of the confidence that is expressed to us every day in this medicine by those who have carefully noted (without prejudice) its effects upon the blood and through that upon the whole system, stimulating all the functions of the body to perform the duties nature requires of them. Try a bottle and satisfy yourself.

Cold Hands and Feet.

Lowell, Feb. 3, 1879.
Messrs. C. I. Hood & Co., Gentlemen—About one year ago my daughter commenced taking your SARSAPARILLA. At that time she had very little appetite; could take no long walks, and her face was badly broken out with pimples. She was low-spirited, troubled with cold hands and feet; her blood seemed to be poor, and she was in a condition which caused us great anxiety. After taking one bottle of your SARSAPARILLA she began to improve, and she now has a good complexion and is in better spirits, is no longer troubled with cold hands and feet as previously. And I attribute this improvement in her condition largely to your SARSAPARILLA. She has taken six bottles, and intends to continue its use. I was inclined to oppose the trial of it at first, I now have great faith in it as a blood purifier. Very truly yours,
A. L. RINCKLEY,
No. 26 Broadway, Lowell, Mass.

Hood's Sarsaparilla.

Sold by all druggists. Price \$1, or six for \$5. Prepared by C. I. HOOD & CO., Apothecaries, Lowell, Mass.

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ROMEO, MICHIGAN.

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Morton's Reversible Tread Horse-Power, Monarch Feed-Cutter, and the Heaviest and Most Reliable Sowing Saw Table.

which, with the Feed-Grinder which we sell, comprises the best set of machinery in the market for the general farmer. The Power is made with an adjustable elevation and has a governor which gives it as perfect and steady a motion as any engine and can be adjusted to run at any speed desired. The Feed-Cutter is made with four new cutting edges without cost. It has the capacity to cut one ton of hay or four tons of clover attached to our Power will grind from 10 to 15 bushels per hour with two horses. For references we direct you to John P. Hagerman, Romeo; Hon. A. B. Maynard, Romeo; Eugene Smith, St. Clair; Hon. H. H. Hatch, Bay City; Hon. Wm. L. Webster, East Saginaw; Dr. M. T. Lapeer, S. L. Horne, South Edmore, N. Y.

We also make a power especially adapted to Grain Elevators and other stationary purposes, which will elevate five bushels per minute, fifty feet high, with one horse and medium velocities. For the purpose we refer you to Miller & Ainsworth, Swartz Creek, H. P. Bush, Gaines Station; James Johnson, Cassopolis; John Gardner, Oxford. Correspondence solicited. For further particulars and illustrated circulars address as above. Mention this paper.

WILSON'S

Cabinet Creamery & Barrel Churn

AND ALL DAIRY SUPPLIES.

FLINT CABBET CREAMERY CO.,

FLINT, MICH.

The woman's friend. It saves three-fourths of the labor in butter making; easily operated; you raise sweet cream from sweet milk; you have sweet milk to feed which makes it rich and good for children. Agents wanted. Address: J. A. Field & Co., Flint, Mich.

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DOOR HANGER.

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Horticultural, NATIONAL POMOLOGY. Twentieth Biennial Session of the American Pomo- logical Society.

Important Papers, Interesting
Discussions, and a Grand
Exhibit of Fruit.

(Concluded from last week.)

THURSDAY EVENING SESSION.
The meeting was called to order by Mr. Geo. T. Monroe, of South Haven. The evening was devoted to listening to an illustrated lecture from Prof. A. J. Cook, of the Agricultural College, on "Economic Entomology." The Professor said the major part of the insects who were so destructive to plant life worked either entirely at night or were so hidden in the soil that the husbandman was not able to discover them. Every vegetable or fruit tree fed a great number of different kinds of insects. The lecturer showed by statistics how much the country lost every year by the ravages of insects. The known amount of damage in money done last year was \$3,000,000, and the unknown damage was probably as much more. The number of species of destructive insects was increasing every year and the problem of warring against them was becoming more and more important. A large number of these insect pests were very formidable because as a rule they had no bird foes in this country. A study of insect life showed that they changed their tastes and habits and in time they left one plant and attacked another. As soon as they destroyed one kind of vegetable or fruit they fed on some other. This showed that eternal vigilance was the price of good harvests. A few years ago California was absolutely free from injurious insects, while now that State is infested with such as any other. All insects had their foes, and the reason why these scourges came often in epidemics and stopped as suddenly, was that these foes to insect life were working all the time. A knowledge of these insect foes, both natural and artificial, was absolutely necessary to the farmer and fruit grower. A knowledge of the habits and life of insects was also necessary so that the best means of exterminating the pests could be learned. Experimenting on the different ways of getting rid of insects should be encouraged, and money should be expended in carrying on experiments. Economic Entomology should be studied by all persons who expect to succeed in fruit growing and farming.

At the close of the lecture, a general discussion took place on the best means of destroying insects which are injurious to plant life.

The lecturer had charts displayed on the stage illustrating different kinds of injurious insects and their growth from the egg and larva to the perfect insect. It was an interesting lecture, and was warmly applauded by the audience at its conclusion.

FRIDAY MORNING.

The meeting was called to order by President Barry at 9 o'clock a. m. Norman J. Colman, Commissioner of Agriculture, was on motion of Dr. Hexamer, invited to address the Society. Mr. Colman said he came to the meeting to acquire information, as he knew he should meet here the advanced thinkers, the progressive agriculturists and horticulturists of the nation. In the addresses and discussions before the Society he thought he should gather information that would be useful to him in his official position, and he had not been disappointed. Horticulture is not a higher branch of agriculture. As farmers advance in intelligence and refinement they naturally pay more attention to the culture of fruits and flowers, and to the adornment of their homes. Being by profession as well as by taste and inclination a horticulturist, in accepting the official position which he held he felt anxious to do all in his power to aid and advance our growing horticultural interests." The Commissioner continued:

"I have already put new machinery at work in aid of our horticultural and agricultural. Appreciating the heavy annual losses sustained by our fruit growers and farmers by the rusts, mildews, and blights which affect their crops, I appointed, soon after taking my office, Prof. Scribner, who was well known to you as a botanist, to make a special study of the study of fungi in plants, and he is giving to this subject his entire attention. The members of this Society can greatly aid him in the work in which he is engaged. Any information relating to this subject sent to the department will be thankfully received, and any questions that may be asked or knowledge sought will receive attention. I feel that this is a most important field for investigation, and the attention which has been given to this subject by this meeting confirms the wisdom of the course I have pursued in giving this matter special attention. Another subject to which I have given considerable thought is the collection of horticultural statistics. Nothing has been done by the department in the collection of information regarding fruit crops. The condition and production of grain crops are carefully reported, but from can tell of the quantity and quality of our fruit crops? Who knows whether there is an over or underproduction of apples the present year from any official source? The value of our apple crop—what is the crop that is marketed—cannot be less than thirty millions of dollars. In Michigan alone it is estimated to be over one million of dollars. Apples have a commercial value like other crops, and so have many other crops, and I shall endeavor in the future to devise some means to collect statistics relating to them. Indeed I think there ought to be a pomological or horticultural department, and nothing but the lack of funds prevents me from establishing it at once, and I may yet find some means of doing so."

"Hereafter the fruits and plants, whether collected in this country or from abroad, will be distributed to the different agricultural colleges and tested, and those which are found valuable can be distributed in the respective States in which they are located. I have already commissioned Mr. Leo. Weltz of Ohio to collect seed of fruits and plants from the great steppes of Russia, and he is now engaged in this duty. I hope for important results from this mission. Prof. Budd and Prof. Gibb accomplished a great work for the north-west by the introduction of valuable fruits from that country, but they were far from being satisfied and they have faith that Mr. Weltz will be instrumental in doing a good work for this country. But gentlemen, I will not detain you longer. I want to say, however, that I am but your agent, your servant, in the work I am doing. I want not only your aid, but your sympathy, your support. I feel that I have a great responsibility resting upon me, but with your generous assistance I hope to be able to discharge my duties to your satisfaction and to the satisfaction of the American people."

Secretary Beal, after the applause following the address had subsided, offered the following resolution, which was unanimously adopted:

"Resolved, That this Society heartily commends the action of Commissioner Colman of the United States Department of Agriculture in the appointment of a person to investigate the diseases of plants, and desires to assure him of continued support in his efforts to develop this new line of work in the Department."

President Barry then rose and spoke of the great gratification it had afforded him to take part in the present meeting. He said he doubted the policy of the Society's coming to Grand Rapids, but the facilities afforded the Society had been equal to any they ever had, both for the holding of their meetings and the display of fruits. All in all this was as good as any exhibit, if not the very best we have ever seen. All our proceedings have moved smoothly—like clock work. I presume this is due mostly to the plans and execution of our Secretary Beal of Michigan. Sincerely we extend thanks to the Pomological Society of Michigan, and to the citizens of Grand Rapids for their hospitality, courtesy and generosity.

Next came a paper on "American Grapes," by T. V. Munson, of Texas. This paper was among the ablest presented during the sessions. It treated the question from a scientific standpoint, and showed what he had done towards bringing about a proper classification of American grapes according to their natural characteristics. He gave a tabulated list of over 150 varieties of grapes, giving common and botanical name, growth, hardiness, vine characteristics, diseases and description of fruit. This table contains over 3,000 separate facts. The specific outlines of our native grapes were shortly given, with their adaptability to soil, climate, etc. The most important species for experimentation were noted; also the great importance of stamens characteristics and the beneficial results following a knowledge of the same by the practical growers as well as the experimenter. These characteristics were illustrated by drawings. The paper was the result of years of experiment, testing and observation, and was pronounced by President Barry one of the ablest if not the ablest ever published upon the grape. Geo. W. Campbell also spoke highly of the paper, and said Mr. Munson seemed to have accomplished that which had been deemed impracticable—a classification of American grapes.

A vote of thanks was given Mr. Munson for his paper. T. S. Hubbard of N. Y., read a brief paper from Mr. J. S. Moore, of Mass., giving his experience with different varieties of the grape. Prof. Budd gave his observations on grapes exhibited at the great fair on the Volga, where there were grapes from Arabia, Persia, India and Afghanistan. He decided that the raisin grapes of the east were equal in quality to the best of those of Spain. He had tried to get some of the grapes shipped to America, but the three times they had been sent, the cuttings had arrived in such a condition as to be worthless. He then gave his experience in trying to get seeds and plants from Russia, and said we should have a resident commissioner to make a success.

A Michigan delegate wished to know if pruning the grape as little as possible in the fall was good.

Mr. Campbell of Ohio said it was best to prune slightly and then lay them down for winter. Snow is a perfect protection from the cold. If where there is no snow, a little earth will suffice in lieu of snow.

Prof. Budd of Iowa, remarked that vines in the west were killed in the root a good deal by cold. In the west they must plant 20 inches deep. If they planted on or near the surface, the plants are likely to get surface roots. In winter it is best to cover with a little earth. This forms a sufficient protection, as experiments show.

Mr. Hubbard of New York, thought that the plan of deep planting, say a foot perhaps, and the covering of vines, very commendable and successful. He thought that from one foot to 14 inches was a good depth for planting in Western New York.

Mr. Rodgers of N. J., spoke of the Iron-clad grape, and said that it was worthless.

Mr. Hubbard of N. Y., said that it was a worthless wild fox grape. Good for nothing. He asked for a discussion on the subject of new varieties, and it was agreed to.

Wyoming Red—Mr. Lyman, of Virginia, said it was good. Mr. Gauszhor, of Michigan: Have had it six years; it bore a good crop every year; is very hardy; ripens a week before Concord; quality fair. T. S. Hubbard, N. Y.: Earliest red grape; not good quality, but valuable in some localities; about as good as Concord; early as Concord; rather foxy. C. A. Green, N. Y.: Handsome grape, poor quality. Mr. Phillips, Grand Haven: Out of 40 varieties it was the most vigorous grower, though it was very promising, and well adapted for the Michigan Lake shore.

Niagara—Mr. Hayes of Michigan: Have the Niagara; it is a good bearer; no mildew nor rot about; have fruited them but one year; they sell well and keep well. Mr. Augur, Connecticut: Have heard it well spoken of as a market variety from New York City. Mr. Lyman, of Virginia: With me it has rotted, and has for the past three years. Mr. Rogers: As healthy as Concord in New Jersey. Mr. Collins of N. J.: Last year it rotted some with him; at other points it did not. Mr. Graham,

Grand Rapids: It is as hardy as the Concord; last year I had a very good crop; a good grower. Mr. Campbell, Ohio: Have not fruited it yet.

Empire State—President Barry had seen it, and considered it a good variety. Mr. Green: Very promising. Mr. Rogers: Very promising with us. Mr. Campbell, Ohio: Should class it as a grape good in quality; is fine flavored and remarkable for healthy foliage. It seems to resist mildew, even when brought in contact with it on other plants; about as hardy as the Concord; had seen it exposed to a temperature 25 degrees below zero, and it came through all right.

Poughkeepsie Red—Mr. Johnson, Ind.: Rotted a little last year, but has done well this season.

Utter Prodig—Mr. Johnson, Ind.: Have fruited it; one of the best grapes I ever grew; foliage was not as good as some. C. A. Green: Large red handsome grape of only fair quality, but thought it would be a favorite with many. Mr. Caywood, New York: Have grown it for 18 years and never saw a leaf of it mildewed; growth moderate; foliage always perfect, even till the grapes are ripe and picked. Mr. Augur: Have seen it, and ordered 100 vines; every one lived.

Hayes—Mr. D. B. Smith: Had known it for 11 years; it was a white grape of fine quality; a week earlier than Concord; in Massachusetts the grape is favorably noted, of medium sized, of excellent flavor; early and hardy; profuse, foliage green; free from mildew; about a week earlier than Concord. Mr. R. Manning of Massachusetts: I think well of the variety; not so vigorous as Concord, but good grower; Last year the vines were mildewed. Mr. Campbell of Ohio: It has Concord foliage.

Centennial—Three or four members, from various sections, reported it good. Amber Queen—No answer.

Victoria—T. M. Hubbard, New York: Fair grower, and he thought better than the Martha.

Triumph—Reported good for Virginia, Texas and Georgia.

El Dorado—Not good for general cultivation.

Highland—Liable to rot in Virginia. Is a late grape, and will not do for the north, where it rots badly.

Early Victor—A desirable grape; hardy and healthy; good grower, a week earlier than Concord; very productive and of good flavor.

Jefferson—Too late north; would have to be laid down to protect it in the winter; will never be a popular grape.

Moore's Early—Prof. Budd: Had got a vine of the first vines sent out, and it was very promising, was harder than the Concord; fruit ripens early, and the foliage better than any other on the grounds; was a good week earlier than the Worden. Lyman of Virginia: Very satisfactory; 10 days earlier than Concord. Mr. Plumb, Wisconsin: Was one of the most promising in Wisconsin; about a week earlier than the Worden. Mr. Rogers: Stands as well in New Jersey both for family and market. Mr. Scott, Ann Arbor: Good until this year, when it rotted badly. J. Ganzhorn, Ann Arbor: Same experience as Mr. Scott. Mr. Harrison, Ohio: Moore's Early did better than anything in our grounds this year. Mr. Green: Think a good deal of it; ripens before Worden this year. Mr. Manning, Massachusetts: Hardy, free from mildew, and a good grower.

Lady Washington—Does well south; too late for the north.

Prentiss—Has not done well except in favorable localities.

A committee composed of Mr. Munson of Texas, Augur of Conn., and Huber of Virginia, was appointed to compare the Worden and Concord grapes for the purpose of determining which is the best in regard to time of ripening, size, etc. Adjourned till 2 p. m.

AFTERNOON SESSION.

President Barry having left for home, Mr. Geo. W. Campbell of Ohio, called the meeting to order, and introduced Mr. W. I. Chamberlain of Ohio, who read a paper entitled "Needs and Methods of Gathering Fruit Statistics." The speaker said he was not a pomological expert, and if a specialist at all it was as a prognosticator of the crops. He took strong ground in favor of some system which would enable fruit-growers to know, from month to month, the real condition of the fruit crop of the country, just as is now done with the grain crops. We shall print this paper in full hereafter.

Mr. Parker Earle, of Illinois, then spoke upon the subject of "Packing and Shipment of Fruits." His remarks were entirely from the point of a grower and shipper, and we give a full summary of them.

"In commercial fruit growing the preparation of fruit for the market is of great importance. If we grow many apples, pears and peaches it matters little what kind of crates or barrels we ship them in. Suppose, though, that our fruit is to be shipped to a distant market, where it has been kept from worms and bugs. In that event the man nearest to a good market is the happier by far. Any kind of crate will do in such cases. To this class very little need be said; more to those, however, who grow fruits at a distance, as the tender berries grown in the south and sent north. In February and March we in the north receive such fruits. These berries are sent from Florida to New York, Chicago and even to distant Winnipeg. How is this? Such fruit had never been heated; it had been kept in refrigerators all the time. From Florida to New York in artificial contrivances, while the natural climate from there on is cold enough to keep what in hot water would not keep over night. So, also, with fruits from California. Apples, nectarines and peaches, which are very tender and perishable, come through sound and in good condition. To this class very little need be said; more to those, however, who grow fruits at a distance, as the tender berries grown in the south and sent north. In February and March we in the north receive such fruits. These berries are sent from Florida to New York, Chicago and even to distant Winnipeg. How is this? Such fruit had never been heated; it had been kept in refrigerators all the time. From Florida to New York in artificial contrivances, while the natural climate from there on is cold enough to keep what in hot water would not keep over night. So, also, with fruits from California. Apples, nectarines and peaches, which are very tender and perishable, come through sound and in good condition. 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MICHIGAN FARMER

STATE JOURNAL OF AGRICULTURE.

JOHNSTONE & GIBBONS, Publishers.

Terms, in Advance:

Subscriptions, \$1.50 per Year

OFFICE OF PUBLICATION:

No. 44 Larned Street, West (Post and Tribune Building) Detroit, Mich.

P. B. BROMFIELD,

Manager of Eastern Office,

21 Park Row, New York.

The Michigan Farmer

STATE JOURNAL OF AGRICULTURE.

DETROIT, TUESDAY, SEPTEMBER 29, 1885.

This Paper is entered at the Detroit Post-office as second class matter.

WHEAT.

The receipts of wheat in this market

the past week amounted to 331,355

bu., against 314,395 bu., the previous

week and 411,373 bu. for corresponding

date in 1884. Shipments for the week

were 232,017 bu. The stocks of wheat

now held in this city amount

to 1,092,476 bu., against 914,764 last

week and 406,459 bu. at the corresponding

date in 1884. The visible supply of this

grain on September 19 was 42,618,337 bu.

against 42,438,202 the previous week, and

23,312,654 bu. at corresponding date in

1884. This shows an increase over the

amount reported the previous week of

\$70,155 bu. The export clearances for

Europe for the week ending September 19

were 484,295 bu., against 521,151 the

previous week, and for the last eight

weeks they were 4,981,620 bu. against 16,

982,193 for the corresponding eight weeks

in 1884.

The past week has been one of considerable

excitement in the wheat market, and

prices have gone up and down rapidly un-

der the influence of war rumors from

Europe. On Wednesday following the

sharp advance of Tuesday, there was a re-

action, and prices did not reach their

highest point again until Friday. Sat-

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points were larger, showing that many

farmers had decided to sell on the present

"bulge" in prices. War rumors were

big stories about the East Indian wheat

crop were also in circulation. Prices de-

clined at all around, and sales of

futures were much smaller. There was

a fair demand for spot wheat. Chicago

was active but weak and lower. No. 2

red closed there at 90c. No. 3 do. at 86c.

and No. 2 spring at 85c. Toledo was

active but with prices easier; No. 2 red

sold at 91c, and soft at 89c. New York

was lower, under light shipping demand.

Liverpool was steady with a fair demand.

All foreign markets steady.

The following table exhibits the daily

closing prices of wheat from September 1

to Sept. 21:

Sept. 10	No. 1 white	No. 2 white	No. 3 white	No. 2 red	No. 3 red
10	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
11	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
12	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
13	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
14	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
15	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
16	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
17	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
18	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
19	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
20	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
21	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2

The following statement gives the

closing figures on No. 1 white futures each

day of the past week for the various dates:

Oct. 1	Oct. 2	Oct. 3	Oct. 4	Oct. 5	Oct. 6	Oct. 7	Oct. 8	Oct. 9	Oct. 10	Oct. 11	Oct. 12	Oct. 13	Oct. 14	Oct. 15	Oct. 16	Oct. 17	Oct. 18	Oct. 19	Oct. 20	Oct. 21
89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2

For No. 2 red the closing prices on the

various dates each day of the past week

were as follows:

Oct. 1	Oct. 2	Oct. 3	Oct. 4	Oct. 5	Oct. 6	Oct. 7	Oct. 8	Oct. 9	Oct. 10	Oct. 11	Oct. 12	Oct. 13	Oct. 14	Oct. 15	Oct. 16	Oct. 17	Oct. 18	Oct. 19	Oct. 20	Oct. 21
86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2	86 1/2

For May delivery, No. 1 white sold at

\$1.05, and No. 2 red at \$1.04.

There has been nothing occurred, as yet,

which will permanently exercise much

influence upon the wheat market. So far

as a European war is concerned, if it

was really a fact, the whole outlook would

be changed; but the mobilization of a few

thousand men by Serbia, Bulgaria and

Roumelia, with an unimportant skirmish,

is not war, though it may at any moment

lead to one. It seems more than prob-

able, judging from the tenor of the dis-

patches now being received, that a con-

ference of the great powers will settle the

questions involved. Turkey is keeping

very quiet. She knows the present British

government will not move a finger to

help her unless their rights appear in

jeopardy from the ambition of Russia.

Turkey protects one end of the Mediter-

ranean and the Suez Canal for Great

Britain, which power will never be con-

tent to see Russia absorb Turkey, not be-

cause she cares about Turkey but because

it will menace the safety of her most di-

rect route to India. It will be a bad day

for Russia, when it looks as if

Russia was becoming too strong in that

direction, Great Britain must take up the

fight. Gladstone may denounce the

"unbearable Turk," and the Cabinet

resolve on a peace policy, but, whenever

her commercial interests are in jeopardy,

cabinets, leaders, everything, will have to

give way, as Great Britain without her

Indian possessions would no longer be

Great Britain; and well her citizens and

politicians realize that important fact.

But she will rely upon diplomacy to the

last moment, and the war that now seems

imminent will be settled by sliding a small

piece off of Turkey and throwing it to

the most clamorous of her assailants, the

Bulgarians.

Of much more importance than war

rumors at present are statistical reports

from abroad of this season's grain crops.

The Vienna International market esti-

mate that the crop of Europe in 1885

is about 100 million bushels under aver-

age, and besides this deficiency is a de-

ficiency in the wheat crop of the world in

1885, but *Bulletin des Hautes*, of 153,400,

600 bush., of which supplies of previous

crops provide for 96,917,700 bushels, leav-

ing a deficit in the wheat supplies of the

world of 55,482,900 bush making the de-

ficiency in wheat and rye together about 155,

482,900 bush. If these figures are even

approximately correct, wheat is good

property at present values. Still, we do

not look for present values to be main-

tained now as previous values. The cir-

cumstances not now apparent, helping to

sustain them. There will probably be a re-

action, prices will decline more or less,

and remain dull until the present large

stocks are worked off. Then there

should be a permanent advance in values.

The foreign markets are all firmer than

a week ago, but as yet little gain has been

made in prices.

CORN AND OATS.

CORN.

The receipts of corn in this market

the past week were 13,315 bu., against 8,789

bu. the previous week, and 19,994 bu. for

corresponding week in 1884. Shipments

were 41,569 bu. The visible supply in the

country on Sept. 19 amounted to 5,598,

576 bu. against 7,153,963 bu. the previous

week, and 5,448,993 bu. at the same

date last year. The visible supply of this

grain on September 19 was 42,618,337 bu.

against 42,438,202 the previous week, and

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1884. This shows an increase over the

amount reported the previous week of

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15	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
16	89 1/2	87 1/2	85 1/2	83 1/2	81 1/2
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89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2	89 1/2

For No. 2 red the closing prices on the

various dates each day of the past week

were as follows:

Oct. 1	Oct. 2	Oct. 3	Oct. 4	Oct. 5	Oct. 6	Oct. 7	Oct. 8	Oct. 9	Oct. 10	Oct. 11	Oct. 12	Oct. 13	Oct. 14	Oct. 15	Oct. 16	Oct. 17	Oct. 18	Oct. 19	Oct. 20	Oct. 21
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IN THE CIVIL SERVICE.

It was a civil service clerk, a happy man he was, for under the rules from more till dark we must serve his count-ter-ee.

With joy he hastened to his home, he hugged his children three, he kissed his wife, and said "Hurrah! I'm passed successful-ly!"

"They asked me 'Where was Homer born?' And then they bade me name the man who led the hope forlorn At the battle of Alcampane.

I gave a list of the English Kings From William down to James, And told the number of Saturn's rings, And Mrs. Southworth's names.

"About Thackeray's I told; I named the North Sea bays, And then I showed them how to fold A napkin fifteen ways.

"Book III, A. M. E. I, I named ten lines, And I read some Xenophon; I explained the Zollic and its sign, And the cause of the cholera.

"And I passed with honor and high award, I'm still to my work away; I'm to be the pitch in the navy yard For a dollar a half a day."

Long laughed the clerk, long laughed his wife, And the children, long he gazed they; And he stirred the pitch the rest of his life In a civil clerkly way.

—R. J. Burdette.

Couldn't Burest the Gun.

Lying snugly hauled near the point of Sandy Hook is a great gun, nearly thirty feet long. It has been there for some time, and is an object of curiosity to all who visit the neighborhood. This gun, says the *Scientific American*, was designed in part by Mr. George Edgar, the actor, whose father was a colonel in the regular army, and is his property. Many thousands of dollars have been spent upon its construction and exhibition, but though a military committee reported favorably upon it, no steps were taken by the Government toward purchasing the patent taken out by the constructor. The claims made for the gun refer exclusively to the breech, which is said to possess no little novelty and merit.

Not long ago Mr. Edgar visited Washington on business connected with this gun. He was accompanied by an American mechanic and designer of guns, now employed by the Russian Government to construct their great gun works on the Neva. After a somewhat unsatisfactory visit to the War Department, the two were sitting in the cafe of the Ebbitt House, discussing the chances of the adoption of the principle of the big gun by the military authorities.

"They tell me," said Mr. Edgar, "that what they want is a gun that won't explode when they get such a one, they say they expect to have no trouble in finding an easy working and efficient breech mechanism."

"Yes," replied his companion, "that's what they are looking for all over the world."

The two men sat silently for some time. Finally Mr. Edgar, in crossing his legs, kicked off the cover from an India rubber cap. Like most of these contrivances, this cover was made of hard rubber with beveled edges, the sides as they sloped toward the hole in the center having a fall or decline of about thirty degrees from a plane.

Mr. Edgar observed this cover intently as it rolled and gyrated about the marble floor.

Before it came to a dead stop he seized it with something like precipitation, and with sparkling eyes exclaimed to his companion: "I've got it!"

"Got what?" asked the latter languidly.

"I've got the principle on which the non-bursting gun can be constructed."

"Bah!"

Not heeding this expression of incredulity on the part of his friend, a man, too, of great skill in metal working, Mr. Edgar gave such forcible reasons for believing a non-bursting gun could be constructed of a series of plates similar in form to the top of a rubber cap, that he was compelled to admit that there was something in the idea.

Returning to New York City, Mr. Edgar at once set to work to make a gun on the plan suggested by the incident in the Ebbitt House cafe.

This experimental gun is four feet long, and composed throughout its whole extent of corrugated plates of Russian iron. At its completion, he took it up to West Point, which he had been told in Washington, was one of the Government testing points for guns.

On his arrival at the works, and mentioning the fact that he had a new gun with him, he was told that the number of new guns constantly appearing was legion.

"The trouble with all of them," said the officer "is that they burst too readily. What kind of a test do you want us to put your gun to?" he added.

"Why," replied Mr. Edgar, "I would like to have the gun burst."

"Certainly," said the officer, with something like sarcasm in his voice. "We're always glad to accommodate gentlemen with new guns."

The gun was now taken behind a hill, a double charge of powder introduced and fired with a time fuse. It turned two or three back somersaults, but remained intact. It was now loaded with a quadruple charge and fired, the only effect being to multiply the number of back somersaults.

"This is very good, indeed," said the officer. "I will now keep you waiting a while. I'll now load it up to the muzzle, and that will be the last of it."

Fired under these conditions it rose in the air, whirled around for a few moments, and then came down and buried itself in the earth. After being dug up it was charged nearly up to the muzzle with powder and wad, and then spiked. The only result was that it rose higher in the air than before, spun around more rapidly, and buried itself still deeper in the ground when it came down. It had not even been chipped!

"It is anything else you'd like to put into it?" demanded Mr. Edgar, it being now his turn to be ironical.

"No," was the reply; "it beats me." Having thus stumped the gun-testing authorities, Mr. Edgar brought his little gun back to New York in triumph.

Bill Nye's Visit to the Falls of Minnehaha.

I have just been over to the Falls of Minnehaha. In fact I have been quite a tourist and summer resorter this season, having saturated my system with 19 different styles of mineral water in Wisconsin alone, and tried to win the attention of 19 different styles of head waiters at three summer hotels. I may add in passing that the summer hotels of Wisconsin and Minnesota have been crowded full the past season and more room will have to be added before another season comes around.

The motto of the summer hotel seems to be, "Unle a ye shall have no feed." Many waiters at these places, by a judicious system of black-mail and starvation, have reduced the guest to a sad state.

The mineral water of Wisconsin ranks high as a beverage. Many persons are using it during the entire summer in place of rum.

The water of Waukesha does not appear to taste of any mineral, although an analysis shows a presence of several kinds of groceries in solution. The water at Palmyra Spring also tastes like any other pure water, but at Kankana, on the Fox River, they have a style of mineral water which is different. Almost as soon as you taste it you discover that it is extremely different.

Colonel Watrous of the Milwaukee *Sun* day Telegraph took some of it afterward. He looked depressed, and told me that he had been deceived. Several Kankana people had told him that this was living water. He had discovered otherwise. He hated to place his confidence in people and then find it misplaced.

A favorite style of Kankana revenge is to drink a quart of this water and then to meet an enemy, to breathe on him and wither him. One breath produces syncope and blind staggers. Two breaths induce coma and a metallic casket for one.

Minnehaha is not mineral water. It is just plain water, giving itself away day after day like a fresh young man in society. If you want pure water, you get it at the spring near the foot of the fall, and if you want it flavored with something that will leave a blazed road the whole length of your alimentary canal, you go to the "blind pig," a few rods away from the falls.

The blind pig draws many people toward the falls through sympathy. To be blind must indeed be a sad plight. Let us pause and reflect on this proposition.

By good fortune I have had a chance to watch the rum problem in all its phases this summer. Beginning in Maine, where the most ingenious methods of whipping the devil around the stump are adopted, then going through Northern Iowa and tasting her exhilarating pop, and at last paying 10 cents to see the blind pig at Minnehaha, I feel like one who has wrestled with the temperance problem in a practical way, and I have about decided that a high license is about the only way to make the sale of whisky odious. Prohibition is too abrupt in its methods, and one generation can hardly wipe out the appetite for liquor that has been planted and fostered by fifty preceding generations.

Life of a Variety Actress.

To such young persons as may be in danger of fascination by the stage the following sketch of the daily life of a variety actress is submitted. The lady in question is much envied by reason of the good salary she earns and the easy life she is supposed to enjoy. At noon she attends rehearsal, which lasts until a short interval, is followed by the evening performance. After midnight there is a ride to the ferry and twenty minutes' walk before home is reached at 2 a. m. Her coming is looked for nightly at the ferry dock by the habitual passengers on the late trips, and with them there is always waiting her invalid husband, who, however tired, is almost always bright and cheery.

A few nights ago she was dull and depressed. "I am afraid," she said, "to meet my husband with news of baby. She's very low. It made me heart sick to leave her; but I had to go to business or lose my place, and so for baby's sake I went. Oh, how I hated the noise the music, the lights, the crowd, the shiny dresses and the stale jokes to-night!" The next night our little actress was brimful with fun and cheer, "because baby's better, thank God—going to get well, you know." Such is the life of the successful on the stage—fifteen hours a day of monotonous toil and travel, well or ill rewarded, full of care or free from care. And not more than one out of many thousands succeed as well as this.

VARIEITES.

ANOTHER OF THOSE INTELLIGENT DOGS.—"This dog," said the Judge, "belonged to a friend of mine, who used always to take him out with him. The dog used to wait outside for him when he went in to call on a friend. One night they were very merry party, and they kept it up late. My friend got very drunk. The dog finally got restless and began to howl. A champagne bottle (flung from the window) just passed his nose and he smelt it and shut up. About two o'clock in the morning my friend came out. He said good-night, shut the door, walked in by the garden gate over the flower beds, and finally, unable to get out, he lay down on a rosebush and went to sleep. The dog watched by him till the milkman came along in the morning, picked him up and took him home."

"That's nothing," said the doctor.

"You just wait a minute. Two or three nights later he went out and called on his friend again and took the dog with him. The dog waited outside a little while and began to howl. Another champagne bottle was thrown at him. He smelt it, winked to himself, and trotted off. He went home, scratched at the door till the servant girl opened it, attracted her friend's wife's attention, made her follow him to a pile of planks and whined till they got out very long and broad one. Then he directed them to where his master was, and when the door bell rang, and the door opened the revellers found the dog, my friend's wife, the servant and a stretcher. The dog knew what was needed, you bet."

WIND ON THE PRAIRIES.—"The prairies of the west are a great place for wind," said a telegraph operator. "I used to have a station out in a lonely place and was a caution. But it was a lucky wind for me. At a station 13 miles west my girl lived, and as I had no Sunday trains or business of any kind I used to go up there and stay over Sunday. But a lively horse from Saturday night to Monday morning cost me too much money, so I rigged me up a sail on an old car. All I had to do on Saturday night was to hoist my sail, push that car out on the main track, and in less than an hour I was at my journey's end. For more than a year I went to see my girl every Saturday night by means of that sail car. Pretty sleek, wasn't it?"

"Yes, pretty sleek. But do you mean to say that the wind blew in the same direction every Saturday night during all that time?"

"Of course I don't."

"Well, how did you manage it those nights when it blew in the other direction?"

"Easy enough. I had another girl at a station 15 miles east."

Greek Meets Greek.

During the last days of General Grant's sickness, and in the long wait at Mount McGregor after his death, Mr. Arkell was one of the most intimate friends of the family. He had much to do with the arrangement of the funeral, and he took great pains to make the family comfortable. When General Hancock arrived on the scene he spent the first day or two at Saratoga, and there spiced his agitated grief with wine.

It may be that the wine did not affect him, and that his testiness and gruffness were due solely to his emotions. At any rate he fussed around more than General Scott ever did in his fussiest days, was dictatorial and fault-finding, and succeeded in making every one with whom he came in contact decidedly uncomfortable. During part of his stay at Saratoga he was in the parlor when General Hancock strided in as straight as an arrow, his fine red face was covered with a look of contempt

Far, Three-card Monte, Backgammon, Seven Up and Poker.

A YOUNG man came into the car grooping through the aisle for a seat. His left eye was covered with a red handkerchief, and his right swollen nearly shut. A white handkerchief was around his head, tied under his chin. His left arm reclined lazily in a sling, and his right was without ambition, though able to be around. His coat was torn, and his trousers looked as though he had made a Chicago slide for third base through a briar patch. He limped in one leg and didn't feel well in the other. "I say," said an inquisitive passenger "been in a railway accident?" "Naw." Another pause, but finally the query, "Base ball?" "Naw." "Well, say," exclaimed the inquisitive passenger, warmly, "you bet you're kind, come to tell me how the world you got banged up in that style?" "Certainly sir," replied the afflicted individual, swiveling his right hand around quite vigorously, and displaying a big muscle, "certainly, sir, certainly; I tried to stick my nose into another man's business."—*Denver Tribune.*

AN EMOTIONAL NATURE.—Mrs. Petyerby was busy cutting her husband's hair. Their little son Johnny picked up some of the hair that was scattered over the floor.

"Please, ma, mayn't I have a lock of papa's hair?" "Yes, my child. Just see there, George, what an affectionate little fellow he is. That child has more heart than any child of his age I ever saw. He wants to keep a lock of your hair as a keepsake. He is the best boy in Texas."

"What do you want the hair for, Johnny?" asked Mr. Petyerby.

"I want to tie it on the tail of my hobby horse, his tail is too thin," replied the affectionate little creature.

Terrible Destruction of a Barn.—The

roaring of the fire, the grim grader of the flames as they rolled round and round, the blinding clouds of high in the air and carried far to the east and south.

Pierce as ten furies, Terrible as hell— the cries of the firemen, the fathers and mothers anxiously watching their homes, the terrified children just awakening from their little slumbers, following after them, the lowing of the cattle, the squealing pigs let loose from the entire neighborhood, and the picture of men on the roof of houses as far as the eye could reach, made the scene a world one, not soon to be effaced from memory's pages.—*Stevens (Wis.) Journal.*

DISCOUNTING THE POSSIBILITIES.—She—

"Do you make any reduction to clergymen?" Gallant Old Confectioner—"Always. Are you a clergyman's wife?"

She (blushing)—"Oh, no; I am not married."

G. C. (becoming interested)—"Daughter, then?"

She (blushing deeper)—"No; but I—I am engaged to a theological student."

"Now, then," said the captain of police to the janitor of the station house, "give the prisoner a bath, and when that is done, let him be handcuffed and sent off to the jail."

"In other words," remarked the janitor, "you want the prisoner washed and ironed and sent off."

"Precisely."

And it was done.—*Boston Courier.*

They say that the inhabitants of ancient

Pompeii first invented fruit canning, and that Americans have simply re-discovered the process. It is quite likely this is so. At any rate there is a great deal of canned fruit and vegetables which, judging from appearance and taste, must have been excavated from the ruins of Pompeii.

Chaff.

When has a man four hands?—When he doubts his fists.

The Boston baseball player, like the bass in the church choir, sings low this year.

"This is the mild September that the oyster begins to show his open countenance.

The fire company said their deceased brother had refused to his last alarm, but did not add, "He has gone to his last fire."

A man out West calls Mr. Anderson a histrionic leech. He does this probably because she is a good deal on the spout.

Ruskin has only recently been convinced that a woman can paint. Ruskin is not so observing a man as we took him to be.

"To test your vanity," says an exchange, "slip down on the sidewalk in front of your best girl." This looks to us more like a test of your trousers than your vanity.

A correspondent, who witnessed a marriage ceremony performed by the Cheyenne Indians, says that the bride was dressed in a six inch girdle and three streaks of red paint.

"Ling Ching is a Chinaman who is immensely rich. He's worth millions," said a traveler. "Goodness!" remarked one of his friends, "He must be a perfect China Astor."

"Mercy on us, Bridget, what have you been doing?" Bridget (returning from the cellar with her hand full of lobster claws)—"Howdy Yritin, me! I've just killed one of the biggest cockroaches a-crawlin' over yer cellar bottom that I ever see in my life."

An officer in the regular army laughed at a timid woman because she was alarmed, and the noise of a cannon when a salute was fired. He subsequently married the timid woman, and six months afterwards he took off his boots in the hall when he came in late at night.

"I understand that Mr. Featherly paid me a very pretty compliment to-day," Ethel—"Yes? What was it?" Clara—"He said that 'among the most beautiful young ladies at the party last night was Miss Clara Starling.'" Ethel (with a cough)—"Yes, I noticed you among them."

Mrs. Dusenbury—"I wish I lived in Tibet." Mr. Dusenbury—"Why, my dear?" "A woman there is allowed to have four husbands!" "But what would you want with four husbands?" "Because, when I asked for a new bonnet the chances are four to one that I would get it."

It is told of Gabriell that when she visited

Russia in 1798 Catherine wished to engage her services for the conquest of the Caucasus, and a salary of five thousand ducats. "Far too much," said the empress, amazed. "Why, that is more than I pay my marshals!" "Then let your field marshals sing for you," was the swift rejoinder of the singer.

Young married couples off on their wedding tours have in times past devised a good many schemes to conceal from fellow travelers how recent their happiness was, but none that were ever heard of equalled in inventive genius the young pair from Somerville who borrowed three years old boy from a neighbor and took along with them to avert suspicion.

Short of Money.—A Danville man left an old watch at a jeweler's to be repaired, and a few weeks later he called for it and asked what the charges were. "Two dollars and a half," replied the jeweler. "Did you say two dollars and a half?" "Yes, sir." "Well," replied the customer, "you can take the watch for part pay, and when I get some change I'll come in and pay the balance."

A Campaign Secret Given Away.

In the campaign of 1884 the two candidates for governor in a "pivotal" Western State arranged for a series of joint discussions. Both men were popular, both of fine appearance and were so well matched in mental force and as orators that the contest between them promised to be a magnificent one. For several weeks the scales balanced evenly.

But one day the brilliant Republican candidate came up ailing. He seemed overcome and spoke laboriously. The next day he was even less effective. Later he was compelled to ask his opponent for a postponement of certain appointments, which was granted. Before the campaign ended he had abandoned the field altogether.

Meantime the Democratic candidate continued his canvass, seeming to grow stronger, cheerier and more effective with each succeeding week. He was elected. One evening in December while entertaining several gentlemen he said:

"I will tell you a campaign secret—which gave me the election. With the opening of my campaign I began caring for my liver. I knew that a disordered or torpid liver meant dullness and possible sickness. I took something every day. When my opponent began failing I knew his trouble to be his liver and felt like prescribing for him, but feared if I did so he might beat me! I grew stronger as the campaign progressed, often making two speeches a day. Even my voice, to my surprise, did not fall me once. All because Warner's safe cure kept me in 'A 1 trim.' Ex Governor Jacob of Kentucky, also made a campaign tour under precisely similar circumstances and says he kept up under the exhausting strain by use of the same means.—*Rochester Union.*

As Mr. Manning left Washington on his vacation the President said: "Where are you going, Dan?" "To Watch Hill." "To watch Hill," mused the President. "Now, perhaps that's not a bad idea, Dan."

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A POSITIVE CURE for every form of SKIN and BLOOD DISEASE. PHILES TO SCROFULA.

PSORIASIS, or Salt Rheum, with its agonizing itching and burning, is speedily relieved by a warm bath with CUTICURA Soap and a simple application of CUTICURA the Great Skin Cure.

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CUTICURA Remedies are absolutely pure and the only infallible Blood Purifiers and Skin Remedies free from poisonous ingredients.

Sold everywhere. Price: CUTICURA, 50c.; Resolvent, \$1; Soap, 3c. Prepared by the FORSTER DRUG AND CHEMICAL CO., BOSTON, MASS.

Send for "How to Cure Skin Diseases."

There Are Women

who have none of those ailments known as Female Complaints, yet who need Zoa-Phora.

When a woman has been working about the home or sewing, or teaching, or taking care of children, or of sick ones, until her nerves are all unstrung, and she feels as though she would fly to pieces, and every thing irritates and annoys her, a dose of Zoa-Phora will strengthen and soothe her nerves and rest her.

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And any women who does suffer from any of those complaints peculiar to her sex, should not delay a day to use Zoa-Phora.

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Zoa-Phora is sold by every prominent druggist in the State.

A Song of Gratitude.

It is often times, Bethesda's pool, I've found for healing all diseases; Once peeled beneath its waters cool, Each evil, stain and sickness ceases.

In modern days we find a cure, Of worth as rare, as much to find in all; A remedy rare, quick and sure, Like the SAMARITAN NERVEINE.

For EPILEPSY, SPASMS, FEVERS, COLIC, CRAMPS, Combs, Colds, or any kind of Palsy; Its merit as a Soother stamps It far above all other physics.

It goes at once right to the spot Where lurks the danger, never averting; In all the world perhaps there's not A cure like Dr. Richmond's NERVEINE.

As in the blood diseases lie; Each artery, each vein, each curve in; There's nothing makes it humbler fly, Like the SAMARITAN NERVEINE.

For old or young, for rich or poor, Water cure class of life you serve in; To health wide open is the door. Dr. Richmond's NERVEINE.

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An exhaustive treatise on Sexual Excesses, the diseases arising from them, and their treatment and cure; also a brief lecture on Epilepsy and other Nervous Diseases, showing the relationship existing between the Sexual and Nervous System.

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This wonderful book reveals the innermost secrets of nature, and is, in fact, a key which opens the book of knowledge, and the secrets of health from the tree of life. It treats of subjects which are of immense value to every man, woman or child in the land, and will save many years of sickness and suffering in doctor bills. Agents wanted everywhere, both male and female. Send at once and get agent's circular.

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We have made arrangements to have manufactured for us a large number of one of the best Sewing Machines ever in use, which we shall sell at about one-third usual prices. Each machine will be nicely finished with a Box Cover, a Drop Leaf Table, and Paper Dolls, and will contain a full set of the latest improved attachments. This illustration is an exact representation of the Machine we send out.

The cut below represents the "Head" or machine part of the Sewing Machine. All parts are made to gauge exactly, and are constructed of the very finest and best material. It is strong, light, simple and durable. Does to perfection all kinds of sewing and ornamental work that can be done on any machine. Each machine is thoroughly well made and fitted with the utmost nicety and exactness, and no machine is permitted by the inspectors to go out of the shop until it has been fully tested and proven to do perfect work, and run light and with as little noise as possible. This machine has a very important improvement in a Loose Balance Wheel, so constructed as to permit winding bobbins without removing the work from the machine.

THE LOOSE BALANCE

WHEEL is actuated by a solid bolt passing through a collar securely pinned to the shaft outside of the balance wheel, which bolt is firmly held to position by a strong spiral spring. When a bobbin is to be wound, the bolt is pulled out far enough to release the balance wheel and turned slightly to the right or left, where it is held by a stop-pin until the bobbin is filled. When the machine is liable to be meddled with by children, the bolt can be left out of the wheel when not in use, so that it can not be operated by the treadle.

The Thread Eyelet and the Needle Clamp are made SELF-THREADING, which is a great convenience to the operator.

THE BALANCE WHEEL is handsomely finished and nickel plated.

THE IMPROVED TENSION and THREAD LIBERATOR combined adds greatly to the value of this machine.

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This Driving Wheel is the invention of John D. Law, less, secured by patent, dated Feb. 7, 1884, and is claimed to be the best device yet invented, being the simplest, easiest running, and most convenient of the many that have been tried. It can be easily adjusted and all wear taken up by turning the cone-pointed screw. It is the only device operating on a center that does not interfere with other patents. Dealers who wish to sell these machines will appreciate this fact.

The Stands have rollers in legs and the Band Wheels are hung upon self-acting adjustable journals. Each stand is run up by steam power after it is set up until it runs very light and easy smoothly.

We have selected this style and finish of machine as being the most desirable for family use.

We furnish the Machine complete as shown in above cut, and include the following attachments, etc. One Johnson's Rock Ruffer, one set Hemmers, one Tucker, one Foot Hammer or Friller, one packer, Needle, six Bobbins, Screw Driver, Can of Oil, Extra Check Spring, extra Thread Plate, Gauge Screw, Wrench, Instructions.

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SHERIFF'S SALE.—By virtue of a writ of

facta issued out of and under the seal of the Circuit Court in and for the County of Wayne, State of Michigan, to me directed and delivered, against the goods and chattels, lands and tenements of John D. Law, do hereby give notice that I, the Sheriff, will sell at public auction and on credit, on the 10th day of April, A. D. 1885, levy upon and seize all the right, title and interest of Martin Sieber in and to the following described places or parcels of land, to wit: All that certain piece or parcel of land, situate, lying and being in the Township of Wayne and State of Michigan, known and described as follows, to wit: Lot three (3) of the numbered twenty (20), block twenty (20) of the subdivision of the rear concession of private claim 728 north of Chicago road, lots one (1), two (2), three (3) and four (4) of the subdivision of the rear concession of private claim 727 north of Chicago road, lots one (1), two (2), three (3) and four (4) of the subdivision of the rear concession of private claim 726 north of Chicago road, lots one (1), two (2), three (3) and four (4) of the subdivision of the rear concession of private claim 725 north of Chicago road, lots one (1), two (2), three (3) and four (4) of the subdivision of the rear concession of private claim 724 north of Chicago road, lots one (1), two 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(Continued from first page.)

eral public found no fault with the award. He is an inbred Hambletonian of a beautiful bay color, stands 15½ hands high, is very stylish and weighs 1,600 pounds. He is now eight years old, but has never been tracked. As a sire, he has proved a success, all of his get showing speed at an early age.

The cattle exhibit has hardly been beaten in our State for quality, and not often in numbers. In Shorthorns, C. F. Moore, B. F. Batcheller, W. J. Bartow, John Goode, and W. C. Wixom were the principal exhibitors. The competition was sharp, and in this class at least no fault was found in the judgment of the committees. Premiums were pretty evenly distributed in individual cases, and all ways to the satisfaction of exhibitors. In herds this Society only gives one premium on aged and one on young herds. W. C. Wixom got the premium on old herd, and W. J. Bartow on the young one. B. F. Batcheller and C. F. Moore were also competitors. Mr. Bartow's herd were all sired by Michigan Duke, bred by Mr. Moore. He is a dark red, and six of his calves on the grounds were as even a lot as we ever saw. Mr. Moore felt fully as good over the premium as the owner did. The Holstein class was a large one, and the premiums in it were well distributed. Messrs. Tousey & Seely of Pontiac, and E. R. Phillips of Bay City, were the largest exhibitors. Mr. Phillips got first on aged bull, first on herd, and several other first and second class premiums in the individual classes. Messrs. Seely & Tousey have no reason to complain, as about all their animals were decorated with a premium card.

The Jerseys were well represented, and a herd of Guernseys, from Oakland County, added variety in this class. One of the finest exhibitions of Herefords in the State appeared in the ring at Flint. The exhibitors were Wm. Hamilton, McMill & Field, Thos. Foster and Foster & Pearl. The judges had a difficult job before them and under the circumstances did fairly well, but when they put the herd premium outside of Merrill & Field we think they erred. This opinion was quite freely expressed on the grounds by the competitors in the ring as well as by quite a number of cattle men on the outside. The two and three year old heifers in this herd, we do not believe can be beat in America, and the rest are exceptionally fine animals.

The sheep exhibit was not as large as we expected, but was fine. Geo. W. Stuart, D. P. Dewey and J. H. Thompson had selections from their flocks of Merinos, and all our readers will understand from this that there was no lack of quality. In the long and middle wool classes, there was an extra good exhibit, the competitors being J. F. Rundel, G. W. Butten, and Mrs. Anne Newton. With these three to contend for the premiums, those interested in this class of sheep throughout the State, can rest assured that their interests were fully represented.

The swine department, though not extra large was a good exhibit. Mr. Thos. Foster had out a good show of Berkshires, John Foster of Jersey Reds, A. A. Sheldon of Poland Chinas and several other exhibitors whose names we did not learn helped to swell the number and variety.

At the election of officers for the ensuing year, the old incumbents were re-elected, the members of the Society by this action showing that they appreciated their labors, and were willing to let them use the experience they have gained in the past to further perfect the workings of the Northeastern in the future. Our space will not permit us to go more fully into the details of the fair, but before we close we must refer to one interesting feature, and that was the reunion of the G. A. R. The number present was large, and they were very comfortably entertained on the grounds. Their meetings, parades, and prize drills were greatly enjoyed by both old and young, and many of the boys of '61 to '65 met for the first time since the close of the war. It is unnecessary to say that they enjoyed it.

To the Editor of the Michigan Farmer.
THE MANUFACTURE OF SALT IN WESTERN NEW YORK.
Salt was first discovered in this part of the State, in Wyoming County, about seven years ago, one-half mile north of the village of Wyoming, by parties who were drilling for oil. They tried to manufacture it by solar evaporation, but soon abandoned it. About one year after it was drilled near the town of Warsaw, four miles south of Wyoming, and since that time the salt business of Western New York has gradually increased, and we now find it one of the principal industries of this part of the State.

The towns of Silver Springs, Castile, LeRoy and Piffard, adjoining Wyoming valley by a few miles, now have large salt works. It is a very interesting sight to visit the salt works. The brine is pumped into large reservoirs, then run into pans about twelve feet wide, and from 25 to 40 feet long. Fire is kept under the pans night and day, for the purpose of boiling down the brine. The salt is scraped out of the pans by men, on to an inclined platform and allowed to drain, then wheeled to bins, and barreled and shipped.

Some of the latest salt works have scrapers that work by steam, for the purpose of scraping the salt from the pans, and elevating it into the bins, thus doing away with the labor of several men, consequently lessening expense.

A few days ago I had the pleasure of visiting a salt shaft, situated in the town of York, Livingston County, the first and only one in the United States. The shaft was commenced August 4, 1884, by a force of ten men, and a twenty horse power engine furnished the power, but was afterwards superseded by two fifty horse power engines. The dimensions of the shaft are 13x19 feet, the entire depth, one foot of each side is taken up by timbers, with which the sides are lined. Since the commencement the work has progressed night and day. Three gangs of men now work eight hours each.

Limestone was the first rock encountered, and then Hamilton shale, Marcellus limestone, coriferous lime rock, and a bastard Heidelberg limestone. The first salt bed is a vein twenty-two feet in thickness, lying a few feet below the last stone mentioned. This bed of salt was reached Sept. 10, 1885, just thirteen months and six days from the time of commencement. The second bed is separated by a few feet of shale, and is fifty-eight feet in thickness. Ten tons of nitro-glycerine have been used for loosening the rock in constructing the shaft. As fast as the work progressed the sides were cased with timbers to prevent any possibility of danger from caving in; and so great has been the watchfulness not a life has been lost or a person seriously injured, although over 150 men are employed in and about the shaft.

The Empire salt mine, as it will probably be termed, is located five miles north-west of Geneseo, two miles west of Piffard, thirty miles south of Rochester, and fifty miles east of Buffalo. The Delaware, Lackawanna & Western railway is within a mile of the shaft on the west, while the Buffalo & Philadelphia company have just begun the construction of a siding two miles long from Piffard to run direct to the works.

Twenty-five electric lights of the Edison incandescent pattern, serve to illuminate the shaft, tower, engine room and office. All the blasts are exploded by an electric battery from the surface to prevent accident.

The company operating the mine was organized in New York city, with a capital stock of \$600,000, in shares of \$100 each. The Empire salt mine, besides being the only one in this country, is perhaps the deepest perpendicular salt mine on the globe. The famous Austrian mines extend into hillsides, and generally are developed in a diagonal direction, while this mine extends straight into the bowels of the earth. The island of Petit Anse, off the coast of Louisiana, has a formation of rock salt upon it, which is reached by digging, but not below the surface of the island. But this can not be termed a salt mine.

What effect the development of the Empire mine will have upon the salt trade cannot be predicted. There will undoubtedly be other mines opened in the vicinity, and it would not be surprising if the pumping system would be one of the methods of the past. If the above be the case the now quiet farming country of the Genesee valley will become a thriving salt mining country, and perhaps salt from there will be used by Europeans, as the salt from the Austrian mines is now used in this country.

Salt is fast becoming one of the best fertilizers we have.

F. C. McPHERSON.

STOCK-RAISING IN CALIFORNIA

To the Editor of the Michigan Farmer.

The ease and cheapness with which stock of all kinds can be raised in California would amaze eastern stockmen. Vast herds (or bands, as they are called here) of cattle, sheep and horses, range over the verdurous stubble fields and commons, and not only thrive, but actually get fat, where it would seem a goose could not subsist on a thousand acres. Nothing seems to come amiss in this hardy and hearty stock. Dry grass, stubble, weeds of all kinds, potato tops, both green and dry, are all devoured with avidity, and seem to be relished by them. We have two grade Durham cows which run during the day in a barley stubble, where there is not a green thing to be seen, and at night are turned on a piece of ground where potatoes were sown, and where they can get nothing but the dry potato tops and a few scattering weeds, and yet they are in good order, and give a good supply of milk. This morning I saw a herd of about 75 cattle, mostly young steers and heifers, which had run since June last on a barley stubble, where not a sign of vegetable growth can be seen, yet they were as fat as they could wallow. Dr. Archer, County Physician for Monterey County, informs me that during the severe drought of 1861-62, when thousands of cattle died from starvation, a cow running in the streets of Monterey not only subsisted, but actually threw on the bits of waste paper she picked up in the streets! I never saw cattle eat potato tops and all kinds of weeds, including turnip, flaxseed, wild turnip, mustard, &c. This flaxseed is especially relished by stock of all kinds, and it grows abundant here. Owing to our winterless climate, stock do not require any housing, and none require feeding except work teams. I am told that at an early day, when stock-raising was the principal work of the people, thousands of cattle were slaughtered merely for their hides, and that the price of a good fat steer or heifer was from \$1.50 to \$3 each. If in traveling one got out of meat, he was at liberty to kill the first fat steer he came across, and take the meat in welcome, only leaving the hide stretched on a tree. To take the hide was considered a heinous offense worthy of death. Notwithstanding the ease and cheapness with which they can be raised and kept here, meat of all kinds is considerably higher than at the East; not from necessity, but because people have been accustomed to receive large prices for all products. People who at one time received \$100 a barrel for flour, \$4 per dozen for eggs, \$3 per pound for butter, and \$1 per pound for tomatoes, are not likely to want to sell their beefs, mutton and pork at famine prices. These commodities retail at from 75 to 100 per cent higher than in the Detroit market. And yet they could all be produced at from 50 to 75 per cent less, and leave a good profit for the producer.

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whole business on a better basis than ever before. The greater proportion of the flocks which have been sacrificed have been the poorest ones—flocks that really did not pay very well in the best of times, and their owners found it out only when the pressure struck them and their attention was called to the matter by the unusual agitation on the subject, brought about by the reduction of the tariff. Whatever may have been the cause for sacrificing so many flocks we cannot help thinking that the business is well rid of a large proportion of them, as they were dead weights which dragged it down. Their extinction or passage into better hands will relieve sheep raising of these clogs, and in the future it will be in a condition to flourish better than ever before. The average flocks are better now than they were a year ago. They have been graded up, the poorer sheep have been disposed of in some way, and now the flock-owners are prepared, with their better average flocks, to give them better care, and to conduct the business on a better basis, and in every way to be more flourishing, especially if they can regain their former amount of protection.

Veterinary Department

Conducted by Prof. Robert Jennings, late of Philadelphia, Pa., author of "The Horse and its Diseases," "Cattle and their Diseases," "Sheep, Swine, and Poultry," "Horse Training," "Horse and Cattle Diseases," etc. Professional advice through the columns of this journal to regular subscribers free. Parties requiring information will be required to send their full name and address to the office of the FARMER. No question will be answered by mail unless accompanied by a fee of one dollar. (In order that correct information may be given, your own interest, by making careful examination of your animals, note every symptom, no matter how trifling it may appear to be; examine the nostrils, lining membrane of the eye, the inside of the mouth, the condition of the bowels, kidneys, etc., cough, discharge from the nostrils, or any other symptom you may observe. In cases of lameness, note the manner in which the animal picks up the foot, carries the leg, note their appearance, the respiration, temperature of the body and legs, condition of the hoofs, etc., or any other symptom you may observe. In cases of lameness, note the manner in which the animal picks up the foot, carries the leg, note their appearance, the respiration, temperature of the body and legs, condition of the hoofs, etc., or any other symptom you may observe. In cases of lameness, note the manner in which the animal picks up the foot, carries the leg, note their appearance, the respiration, temperature of the body and legs, condition of the hoofs, etc., or any other symptom you may observe.)

Private address, 301 First Street, Detroit.

Ichthyosis, or Fish Skin Disease.

NEW HAVEN, Sept. 28, 1885.

Veterinary Editor Michigan Farmer.

DEAR SIR:—I have a four-year-old bay gelding, that I use only for a single week. About four weeks ago I noticed on his neck and withers a few small blotches; upon feeling of them they felt like a pea under the skin; after two or three days a small scab appears, which peels up at the edges; the center seems to grow fast to the skin, and the first one to remove it by something that hangs close enough that you can't pull it off with your nails. They are not sore, nor do they seem to itch; the horse has not been overdriven or heated. Within a week scores of these blotches have appeared all over his body and head, the first ones not healing or getting any worse. I have resorted to no treatment, hoping to find a case similar and the remedy used; so far have failed. As for as the horse's general health I can see no change in his feed, bowels or water. I think the disorder due to a morbid condition of his liver and blood. Any information as to treatment thankfully received by a SUBSCRIBER.

Answer.—The symptoms of disease as described by the amateur horseman, when seeking veterinary advice, are often misleading, and perplexing in an attempt to diagnose the disease correctly. If our conception of the symptoms in your animal as described are correct, the disease is one of rare occurrence. It belongs to a class of diseases known as ichthyosis, or fish skin disease, resembling somewhat the more common disease *stiftus*, so called in consequence of the difficulty experienced in their removal, requiring the use of the scalpel for their extirpation. The disease is not an inflammatory one, but due to a morbid condition of the blood; which requires both constitutional and local treatment. Give the following: Flour of sulphur, two ounces; black antimony, one ounce; nitrate of potash, one ounce. Reduce to powder and mix all together. Dose, one tablespoonful once a day. Give no corn or corn meal. Apply to the scab a little vasoline once a day. As this is an interesting case you will oblige us by reporting progress, when if necessary we will advise you how to proceed.

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